CONTENTS OF VOLUME 20

NUMBER 1

M. SINGH, M. SHARMA and H.J. TOBSCHALL: Weathering of the Ganga alluvial plain, northern India: implications from fluvial geochemistry of the Gomati River 1

E. GONZÁLEZ-PARTIDA, A. CARRILLO-CHÁVEZ, G. LEVRESSE, E. TELLO-HINOJOSA, S. VENEGAS-SALGADO, G. RAMIREZ-SILVA, M. PAL-VERMA, J. TRITLLA and A. CAMPRUBI: Hydrogeochemical and isotopic fluid evolution of the Los Azufres geothermal field, Central Mexico 23

S. GRASSI and G. CORTECCI: Hydrogeology and geochemistry of the multilayered confined aquifer of the Pisa plain (Tuscany – central Italy) 41

R.T. NICKSON, J.M. MCARTHUR, B. SHRESTHA, T.O. KYAW-MYINT and D. LOWRY: Arsenic and other drinking water quality issues, Muzaffargarh District, Pakistan 55

A.P. KARAGEORGIS, C.L. ANAGNOSTOU and H. KABERI: Geochemistry and mineralogy of the NW Aegean Sea surface sediments: implications for river runoff and anthropogenic impact 69

S. RAMÍREZ, P. VIEILLARD, A. BOUCHET, A. CASSAGNABÈRE, A. MEUNIER and E. JACQUOT: Alteration of the Callovo–Oxfordian clay from Meuse-Haute Marne underground laboratory (France) by alkaline solution. I. A XRD and CEC study 89

L. JOHANSSON, C. XYDAS, N. MESSIOS, E. STOLTZ and M. GREGER: Growth and Cu accumulation by plants grown on Cu containing mine tailings in Cyprus 101

R. CRUZ, I. GONZÁLEZ and M. MONROY: Electrochemical characterization of pyrrhotite reactivity under simulated weathering conditions 109

B.L. BROWN, A.D. SLAUGHTER and M.E. SCHREIBER: Controls on roxarsone transport in agricultural watersheds 123

D.N. CASTENDYK, J.L. MAUK and J.G. WEBSTER: A mineral quantification method for wall rocks at open pit mines, and application to the Martha Au–Ag mine, Waihi, New Zealand 135

E. PARDO-IGÚZQUIZA and M. CHICA-OLMO: Interpolation and mapping of probabilities for geochemical variables exhibiting spatial intermittency 157

M.-X. ZHU, X. JIANG and G.-L. JI: Investigation of time-dependent reactions of H^+ ions with variable and constant charge soils: a comparative study 169

J. JÖNSSON, P. PERSSON, S. SJÖBERG and L. LÖVGREN: Schwertmannite precipitated from acid mine drainage: phase transformation, sulphate release and surface properties 179

J.G. CATALANO, J.A. WARNER and G.E. BROWN JR.: Sorption and precipitation of Co(II) in Hanford sediments and alkaline aluminate solutions 193

J.E. GRAY, D.L. FEY, C.W. HOLMES and B.K. LASORSA: Historical deposition and fluxes of mercury in Narraguinnep Reservoir, southwestern Colorado, USA 207

NUMBER 2

G. JACKS, P. BHATTACHARYA, V. CHAUDHARY and K.P. SINGH: Controls on the genesis of some high-fluoride groundwaters in India 221

K.-H. Goh and T.-T. Lim: Arsenic fractionation in a fine soil fraction and influence of various anions on its mobility in the subsurface environment 229

C. Merz, P. Schuhmacher, A. Winkler and A. Pekdeger: Identification and regional quantification of hydrochemical processes at the contact zone between anoxic groundwater and surface water in poldered floodplains (Oderbruch polder, Germany) 241

S. Okubo: Effects of thermal cracking of hydrocarbons on the homogenization temperature of fluid inclusions from the Niigata oil and gas fields, Japan 255

G. Mallén, R. Trettin, M. Gehre, R. Flynn, T. Grischek and W. Nestler: Influence of upwelling Zechstein sulphate on the concentration and isotope signature of sedimentary sulphides in a fluvioglacial sand aquifer 261

C.M. Linklater, D.J. Sinclair and P.L. Brown: Coupled chemistry and transport modelling of sulphidic waste rock dumps at the Aitik mine site, Sweden 275

M. Yamanaka, T. Nakano and N. Tase: Hydrogeochemical evolution of confined groundwater in northeastern Osaka Basin, Japan: estimation of confined groundwater flux based on a cation exchange mass balance method 295

M. Angelone, C. Gasparini, M. Guerra, S. Lombardi, L. Pizzino, F. Quattrocchi, E. Sacchi and G.M. Zuppi: Fluid geochemistry of the Sardinian Rift-Campidano Graben (Sardinia, Italy): fault segmentation, seismic quiescence of geochemically "active" faults, and new constraints for selection of CO_2 storage sites 317

K. Grünfeld: Dealing with outliers and censored values in multi-element geochemical data – a visualization approach using XmdvTool 341

Z. Cheng and K.A. Foland: Lead isotopes in tap water: implications for Pb sources within a municipal water supply system 353

J. Tuo and R.P. Philp: Saturated and aromatic diterpenoids and triterpenoids in Eocene coals and mudstones from China 367

A. Courtin-Nomade, C. Grosbois, H. Bril and C. Roussel: Spatial variability of arsenic in some iron-rich deposits generated by acid mine drainage 383

F. Garrido, V. Illera and M.T. García-González: Effect of the addition of gypsum- and lime-rich industrial by-products on Cd, Cu and Pb availability and leachability in metal-spiked acid soils. 397

G. Montes-H, B. Fritz, A. Clement and N. Michau: A simplified method to evaluate the swelling capacity evolution of a bentonite barrier related to geochemical transformations 409

R.L. Seiler, K.G. Stollenwerk and J.R. Garbarino: Factors controlling tungsten concentrations in ground water, Carson Desert, Nevada 423

M.A. Glaus, B. Baeyens, M. Lauber, T. Rabung and L.R. Van Loon: Influence of water-extractable organic matter from Opalinus Clay on the sorption and speciation of Ni(II), Eu(III) and Th(IV) 443

Book review 453

NUMBER 3

Y. Xiong, A. Geng, C. Pan, D. Liu and P. Peng: Characterization of the hydrogen isotopic composition of individual *n*-alkanes in terrestrial source rocks 455

L. Pérez del Villar, A. Garralón, A. Delgado, E. Reyes, J.S. Cózar, P. Gómez, R. Núñez, L. Sánchez and J. Raya: Hydrogeochemical evolution and C isotope study of groundwaters from "Mina Fe" U deposit (Salamanca, Spain): implications for processes in radwaste disposal 465

A.J. Quejido, L. Pérez del Villar, J.S. Cózar, M. Fernández-Díaz and M.T. Crespo: Distribution of trace elements in fracture fillings from the "Mina Fe" uranium deposit (Spain) by sequential leaching: implications for the retention processes 487

P. Zuddas and F. Podda: Variations in physico-chemical properties of water associated with bio-precipitation of hydrozincite [$Zn_5(CO_3)_2(OH)_6$] in the waters of Rio Naracauli, Sardinia (Italy) ... 507

W. Liu, H. Yang, Y. Cao, Y. Ning, L. Li, J. Zhou and Z. An: Did an extensive forest ever develop on the Chinese Loess Plateau during the past 130 ka?: a test using soil carbon isotopic signatures 519

R.R. Bell and G.C. Saunders: Cadmium adsorption on hydrous aluminium (III) oxide: effect of adsorbed polyelectrolyte 529

O. Francioso, D. Montecchio, P. Gioacchini and C. Ciavatta: Thermal analysis (TG–DTA) and isotopic characterization (^{13}C–^{15}N) of humic acids from different origins 537

C. Zhang, S. Li, H. Zhao and J. Zhang: Applications of Mango's light hydrocarbon parameters to petroleum from Tarim basin, NW China 545

J. Tuo and Q. Li: Occurrence and distribution of long-chain acyclic ketones in immature coals 553

D.L. Naftz, J. Yahnke, J. Miller and S. Noyes: Selenium mobilization during a flood experiment in a contaminated wetland: Stewart Lake Waterfowl Management Area, Utah 569

I. Deniau, S. Derenne, C. Beaucaire, H. Pitsch and C. Largeau: Simulation of thermal stress influence on the Boom Clay kerogen (Oligocene, Belgium) in relation to long-term storage of high activity nuclear waste. I. Study of generated soluble compounds 587

J.A. Corcho Alvarado, R. Purtschert, K. Hinsby, L. Troldborg, M. Hofer, R. Kipfer, W. Aeschbach-Hertig and H. Arno-Synal: ^{36}Cl in modern groundwater dated by a multi-tracer approach ($^3H/^3He$, SF_6, CFC-12 and ^{85}Kr): a case study in quaternary sand aquifers in the Odense Pilot River Basin, Denmark 599

A. Lima, S. Albanese and D. Cicchella: Geochemical baselines for the radioelements K, U, and Th in the Campania region, Italy: a comparison of stream-sediment geochemistry and gamma-ray surveys 611

G. Qiu, X. Feng, S. Wang and L. Shang: Mercury and methylmercury in riparian soil, sediments, mine-waste calcines, and moss from abandoned Hg mines in east Guizhou province, southwestern China 627

M.C. Moncur, C.J. Ptacek, D.W. Blowes and J.L. Jambor: Release, transport and attenuation of metals from an old tailings impoundment 639

L. LEI and R. WATKINS: Acid drainage reassessment of mining tailings, Black Swan Nickel Mine, Kalgoorlie, Western Australia 661

Erratum 669

NUMBER 4

Selected Papers from the 5th Symposium on Applied Isotope Geochemistry, Heron Island, Great Barrier Reef, Australia, 26–30 May 2003

Editors: A.S. ANDREW and S.D. GOLDING

A.S. ANDREW and S.D. GOLDING: Preface 671

M. NOVÁK, M. ADAMOVÁ, R.K. WIEDER and S.H. BOTTRELL: Sulfur mobility in peat 673

J.J. VENKITESWARAN and S.L. SCHIFF: Methane oxidation: isotopic enrichment factors in freshwater boreal reservoirs 683

S.L. SCHIFF, J. SPOELSTRA, R.G. SEMKIN and D.S. JEFFRIES: Drought induced pulses of SO_4^{2-} from a Canadian shield wetland: use of $\delta^{34}S$ and $\delta^{18}O$ in SO_4^{2-} to determine sources of sulfur 691

M. FETTE, R. KIPFER, C.J. SCHUBERT, E. HOEHN and B. WEHRLI: Assessing river–groundwater exchange in the regulated Rhone River (Switzerland) using stable isotopes and geochemical tracers. 701

J.-P. GIRARD, C. FLÉHOC and E. GAUCHER: Stable isotope composition of CO_2 outgassed from cores of argillites: a simple method to constrain $\delta^{18}O$ of porewater and $\delta^{13}C$ of dissolved carbon in mudrocks 713

A.S. ANDREW, D.J. WHITFORD, M.D. BERRY, S.A. BARCLAY and A.M. GIBLIN: Origin of salinity in produced waters from the Palm Valley gas field, Northern Territory, Australia 727

P. NÉGREL and J. CASANOVA: Comparison of the Sr isotopic signatures in brines of the Canadian and Fennoscandian shields 749

P. DE CARITAT, D. KIRSTE, G. CARR and M. MCCULLOCH: Groundwater in the Broken Hill region, Australia: recognising interaction with bedrock and mineralisation using S, Sr and Pb isotopes ... 767

M. EDRAKI, S.D. GOLDING, K.A. BAUBLYS and M.G. LAWRENCE: Hydrochemistry, mineralogy and sulfur isotope geochemistry of acid mine drainage at the Mt. Morgan mine environment, Queensland, Australia 789

S.N. CHILLRUD, N.G. HEMMING, J.M. ROSS, S. WALLACE and N. LOIACONO: A rapid and precise procedure for Pb isotopes in whole blood by Fe co-precipitation and MC-ICPMS analysis 807

Announcement 815

NUMBER 5

R.S. HARMON: Preface to the Ingerson Lecture 817

S. MOORBATH: Oldest rocks, earliest life, heaviest impacts, and the Hadean–Archaean transition 819

S. DENIMAL, C. BERTRAND, J. MUDRY, Y. PAQUETTE, M. HOCHART and M. STEINMANN: Evolution of the aqueous geochemistry of mine pit lakes – Blanzy–Montceau-les-Mines coal basin (Massif Central, France): origin of sulfate contents; effects of stratification on water quality 825

A.B. CUNDY and L. HOPKINSON: Electrokinetic iron pan generation in unconsolidated sediments: implications for contaminated land remediation and soil engineering 841

K. ADACHI and Y. TAINOSHO: Single particle characterization of size-fractionated road sediments . 849

S.J. VAN DER HOVEN, D.K. SOLOMON and G.R. MOLINE: Natural spatial and temporal variations in groundwater chemistry in fractured, sedimentary rocks: scale and implications for solute transport 861

B. GAMBARDELLA, L. MARINI and I. BANESCHI: Dissolved potassium in the shallow groundwaters circulating in the volcanic rocks of central-southern Italy 875

G. LETURCQ, P.J. MCGLINN, C. BARBE, M.G. BLACKFORD and K.S. FINNIE: Aqueous alteration of nearly pure Nd-doped zirconolite ($Ca_{0.8}Nd_{0.2}ZrTi_{1.8}Al_{0.2}O_7$), a passivating layer control 899

A.W. SCHROTH and R.A. PARNELL JR.: Trace metal retention through the schwertmannite to goethite transformation as observed in a field setting, Alta Mine, MT 907

S. AUDRY, G. BLANC and J. SCHÄFER: The impact of sulphide oxidation on dissolved metal (Cd, Zn, Cu, Cr, Co, Ni, U) inputs into the Lot–Garonne fluvial system (France) 919

T.H.E. HEATON, J.K. TRICK and G.M. WILLIAMS: Isotope and dissolved gas evidence for nitrogen attenuation in landfill leachate dispersing into a chalk aquifer 933

J. MAHONEY, D. LANGMUIR, N. GOSSELIN and J. ROWSON: Arsenic readily released to pore waters from buried mill tailings 947

L.R. VAN LOON, W. MÜLLER and K. IIJIMA: Activation energies of the self-diffusion of HTO, $^{22}Na^{+}$ and $^{36}Cl^{-}$ in a highly compacted argillaceous rock (Opalinus Clay) 961

A. WIDERLUND, E. SHCHERBAKOVA, E. CARLSSON, H. HOLMSTRÖM and B. ÖHLANDER: Laboratory study of calcite–gypsum sludge–water interactions in a flooded tailings impoundment at the Kristineberg Zn–Cu mine, northern Sweden 973

P.L. SMEDLEY, D.G. KINNIBURGH, D.M.J. MACDONALD, H.B. NICOLLI, A.J. BARROS, J.O. TULLIO, J.M. PEARCE and M.S. ALONSO: Arsenic associations in sediments from the loess aquifer of La Pampa, Argentina 989

A. OHTA, N. IMAI, S. TERASHIMA and Y. TACHIBANA: Application of multi-element statistical analysis for regional geochemical mapping in Central Japan 1017

Erratum 1039

NUMBER 6

Y. WU, J. CHEN, X. WU, Q. TIAN, J. JI and Z. QIN: Possibilities of reflectance spectroscopy for the assessment of contaminant elements in suburban soils 1051

S. CALIRO, G. CHIODINI, R. AVINO, C. CARDELLINI and F. FRONDINI: Volcanic degassing at Somma–Vesuvio (Italy) inferred by chemical and isotopic signatures of groundwater 1060

P. Birkle and M. Angulo: Conceptual hydrochemical model of late Pleistocene aquifers at the Samario–Sitio Grande petroleum reservoir, Gulf of Mexico, Mexico 1077

N.J. Evans, N.S.F. Wilson, J.S. Cline, B.I.A. McInnes and J. Byrne: Fluorite (U–Th)/He thermochronology: Constraints on the low temperature history of Yucca Mountain, Nevada 1099

B. Zmazek, M. Živčić, L. Todorovski, S. Džeroski, J. Vaupotič and I. Kobal: Radon in soil gas: How to identify anomalies caused by earthquakes 1106

S.G. Todorova, D.I. Siegel and A.M. Costello: Microbial Fe(III) reduction in a minerotrophic wetland – geochemical controls and involvement in organic matter decomposition 1120

S. Emberley, I. Hutcheon, M. Shevalier, K. Durocher, B. Mayer, W.D. Gunter and E.H. Perkins: Monitoring of fluid–rock interaction and CO_2 storage through produced fluid sampling at the Weyburn CO_2-injection enhanced oil recovery site, Saskatchewan, Canada 1131

F. Claret, T. Schäfer, T. Rabung, M. Wolf, A. Bauer and G. Buckau: Differences in properties and Cm(III) complexation behavior of isolated humic and fulvic acid derived from Opalinus clay and Callovo-Oxfordian argillite 1158

V. Cappuyns and R. Swennen: Kinetics of element release during combined oxidation and pH_{stat} leaching of anoxic river sediments 1169

N.V. Sidenko and B.L. Sherriff: The attenuation of Ni, Zn and Cu, by secondary Fe phases of different crystallinity from surface and ground water of two sulfide mine tailings in Manitoba, Canada 1180

A.B. Cundy, L. Hopkinson, R. Lafite, K. Spencer, J.A. Taylor, B. Ouddane, C.M. Heppell, P.J. Carey, R. Charman, D. Shell and S. Ullyott: Heavy metal distribution and accumulation in two *Spartina* sp.-dominated macrotidal salt marshes from the Seine estuary (France) and the Medway estuary (UK) 1195

H. Lippold, N. Müller and H. Kupsch: Effect of humic acid on the pH-dependent adsorption of terbium (III) onto geological materials 1209

C.S. Neuberger and G.R. Helz: Arsenic(III) carbonate complexing 1218

S. Regenspurg and S. Peiffer: Arsenate and chromate incorporation in schwertmannite 1226

NUMBER 7

C.J. von der Heyden and M.G. New: Differentiating dilution and retention processes in mine effluent remediation within a natural wetland on the Zambian Copperbelt 1241

C. Donisa, E. Steinnes and T.E. Sjøbakk: Nitric-acid soluble fractions of 21 elements in Norwegian podzols: Factors affecting regional differences in vertical distribution 1258

Y. Wang and K. Salvage: Immobilization of uranium in the presence of $Fe_{0(s)}$: Model development and simulation of contrasting experimental conditions 1268

L. Duro, F. El Aamrani, M. Rovira, J. Giménez, I. Casas, J. de Pablo and J. Bruno: The dissolution of high-FeO olivine rock from the Lovasjärvi intrusion (SE-Finland) at 25°C as a function of pH 1284

A. Boronina, P. Renard, W. Balderer and W. Stichler: Application of tritium in precipitation and in groundwater of the Kouris catchment (Cyprus) for description of the regional groundwater flow 1292

J.C. Hower, G.A. Thomas, S.M. Mardon and A.S. Trimble: Impact of co-combustion of petroleum coke and coal on fly ash quality: Case study of a Western Kentucky power plant 1309

J.S. España, E.L. Pamo, E. Santofimia, O. Aduvire, J. Reyes and D. Barettino: Acid mine drainage in the Iberian Pyrite Belt (Odiel river watershed, Huelva, SW Spain): Geochemistry, mineralogy and environmental implications 1320

K. Mashal, J.B. Harsh, M. Flury and A.R. Felmy: Analysis of precipitates from reactions of hyperalkaline solutions with soluble silica 1357

M. Accornero, L. Marini, G. Ottonello and M.V. Zuccolini: The fate of major constituents and chromium and other trace elements when acid waters from the derelict Libiola mine (Italy) are mixed with stream waters 1368

B. Rondeau, D. Cossa, P. Gagnon, T.T. Pham and C. Surette: Hydrological and biogeochemical dynamics of the minor and trace elements in the St. Lawrence River 1391

J. Greskowiak, H. Prommer, G. Massmann, C.D. Johnston, G. Nützmann and A. Pekdeger: The impact of variably saturated conditions on hydrogeochemical changes during artificial recharge of groundwater 1409

C. Cai, R.H. Worden, G.A. Wolff, S. Bottrell, D. Wang and X. Li: Origin of sulfur rich oils and H_2S in Tertiary lacustrine sections of the Jinxian Sag, Bohai Bay Basin, China 1427

NUMBER 8

C.L. Kairies, R.C. Capo and G.R. Watzlaf: Chemical and physical properties of iron hydroxide precipitates associated with passively treated coal mine drainage in the Bituminous Region of Pennsylvania and Maryland 1445

K.A. Schwehr, P.H. Santschi, J.E. Moran and D. Elmore: Near-conservative behavior of ^{129}I in the orange county aquifer system, California 1461

N. Otero, L. Vitòria, A. Soler and A. Canals: Fertiliser characterisation: Major, trace and rare earth elements 1473

P.N. Ranasinghe, C.B. Dissanayake and M.S. Rupasinghe: Application of geochemical ratios for delineating gem-bearing areas in high grade metamorphic terrains 1489

J.A. Izbicki, A.H. Christensen, M.W. Newhouse and G.R. Aiken: Inorganic, isotopic, and organic composition of high-chloride water from wells in a coastal southern California aquifer 1496

R.A. McCartney and T. Østvold: Mass transfer of H_2O between petroleum and water: Implications for oilfield water sample quality 1518

J. Brown, S. Sander, D. Craw and K. Hunter: Measurement of labile metals in acid rock drainage springs, New Zealand: Field application of anodic stripping voltammetry 1533

R. Piani, S. Covelli and H. Biester: Mercury contamination in Marano Lagoon (Northern Adriatic sea, Italy): Source identification by analyses of Hg phases 1546

L. Lee and D. Helsel: Baseline models of trace elements in major aquifers of the United States ... 1560

S. Rose and P.D. Fullagar: Strontium isotope systematics of base flow in Piedmont Province watersheds, Georgia (USA) 1571

M. Rabiet, F. Brissaud, J.-L. Seidel, S. Pistre and F. Elbaz-Poulichet: Deciphering the presence of wastewater in a medium-sized Mediterranean catchment using a multitracer approach 1587

R. Bartlett, S. Bottrell and J. Coulson: Behaviour of sulphur during diagenesis of a maritime ombrotrophic peat from Yell, Shetland Islands, UK 1597

NUMBER 9

B.T. Gudmundsson and S. Arnórsson: Secondary mineral–fluid equilibria in the Krafla and Námafjall geothermal systems, Iceland 1607

R.L. Seiler: Combined use of ^{15}N and ^{18}O of nitrate and ^{11}B to evaluate nitrate contamination in groundwater 1626

C.-W. Chang, C.-F. You, C.-Y. Huang and T.-Q. Lee: Rapid determination of chemical and physical properties in marine sediments using a near-infrared reflectance spectroscopic technique 1637

O. Gibert, J. de Pablo, J.L. Cortina and C. Ayora: Municipal compost-based mixture for acid mine drainage bioremediation: Metal retention mechanisms 1648

S. Kebede, Y. Travi, T. Alemayehu and T. Ayenew: Groundwater recharge, circulation and geochemical evolution in the source region of the Blue Nile River, Ethiopia 1658

K.P. Saripalli, P.D. Meyer, K.E. Parker and M.J. Lindberg: Effect of chemical reactions on the hydrologic properties of fractured and rubbelized glass media 1677

P.-k. Lee, M.-J. Kang, S.-H. Choi and J.-C. Touray: Sulfide oxidation and the natural attenuation of arsenic and trace metals in the waste rocks of the abandoned Seobo tungsten mine, Korea 1687

N.A. Wall and S.A. Mathews: Sustainability of humic acids in the presence of magnesium oxide 1704

P. Sarala: Till geochemistry in the ribbed moraine area of Peräpohjola, Finland 1714

C. Zhang and P. O'Connor: Comparison between heavy metal concentrations in sediments analysed by two methods: Analyses on detection limits and data quality 1737

Y. Tardy, V. Bustillo, C. Roquin, J. Mortatti and R. Victoria: The Amazon. Biogeochemistry applied to river basin management. Part I. Hydro-climatology, hydrograph separation, mass transfer balances, stable isotopes, and modelling 1746

NUMBER 10

P. TUCCIMEI, R. SALVATI, G. CAPELLI, M.C. DELITALA and P. PRIMAVERA: Groundwater fluxes into a submerged sinkhole area, Central Italy, using radon and water chemistry 1831

Z. XIE, L. SUN, P. ZHANG, S. ZHAO, X. YIN, X. LIU and B. CHENG: Preliminary geochemical evidence of groundwater contamination in coral islands of Xi-Sha, South China Sea 1848

C. ZHANG, F.T. MANHEIM, J. HINDE and J.N. GROSSMAN: Statistical characterization of a large geochemical database and effect of sample size 1857

ZHU YANGMING, WENG HUANXIN, SU AIGUO, LIANG DIGANG and PENG DEHUA: Geochemical characteristics of Tertiary saline lacustrine oils in the Western Qaidam Basin, northwest China ... 1875

S. NORRA, Z.A. BERNER, P. AGARWALA, F. WAGNER, D. CHANDRASEKHARAM and D. STÜBEN: Impact of irrigation with As rich groundwater on soil and crops: A geochemical case study in West Bengal Delta Plain, India 1890

A.C. NORRSTRÖM: Metal mobility by de-icing salt from an infiltration trench for highway runoff ... 1907

C.S. KIRBY and C.A. CRAVOTTA III: Net alkalinity and net acidity 1: Theoretical considerations .. 1920

C.S. KIRBY and C.A. CRAVOTTA III: Net alkalinity and net acidity 2: Practical considerations 1941

M. BASKARAN, G.-H. HONG, S.-H. KIM and W.J. WARDLE: Reconstructing seawater column ^{90}Sr based upon $^{210}Pb/^{226}Ra$ disequilibrium dating of mollusk shells 1965

A. BOUKADI, R.P. PHILP and N.X. THANH: Characterization of paraffinic deposits in crude oil storage tanks using high temperature gas chromatography 1974

NUMBER 11

A.R. KEIMOWITZ, H.J. SIMPSON, M. STUTE, S. DATTA, S.N. CHILLRUD, J. ROSS and M. TSANG: Naturally occurring arsenic: Mobilization at a landfill in Maine and implications for remediation. 1985

J. RIVAS PEREZ, S.A. BANWART and I. PUIGDOMENECH: The kinetics of $O_{2(aq)}$ reduction by structural ferrous iron in naturally occurring ferrous silicate minerals 2003

K. GÜRGEY, R.P. PHILP, C. CLAYTON, H. EMIROĞLU and M. SIYAKO: Geochemical and isotopic approach to maturity/source/mixing estimations for natural gas and associated condensates in the Thrace Basin, NW Turkey 2017

J.L. PALANDRI, R.J. ROSENBAUER and Y.K. KHARAKA: Ferric iron in sediments as a novel CO_2 mineral trap: CO_2–SO_2 reaction with hematite 2038

F. TASSI, C. MARTINEZ, O. VASELLI, B. CAPACCIONI and J. VIRAMONTE: Light hydrocarbons as redox and temperature indicators in the geothermal field of El Tatio (northern Chile) 2049

M. BARBIERI, T. BOSCHETTI, M. PETITTA and M. TALLINI: Stable isotope (^2H, ^{18}O and $^{87}Sr/^{86}Sr$) and hydrochemistry monitoring for groundwater hydrodynamics analysis in a karst aquifer (Gran Sasso, Central Italy) 2063

J. TITS, E. WIELAND and M.H. BRADBURY: The effect of isosaccharinic acid and gluconic acid on the retention of Eu(III), Am(III) and Th(IV) by calcite 2082

I. Deniau, F. Behar, C. Largeau, P. De Cannière, C. Beaucaire and H. Pitsch: Determination of kinetic parameters and simulation of early CO_2 production from the Boom Clay kerogen under low thermal stress 2097

M.A. Huerta-Diaz, A. Tovar-Sánchez, G. Filippelli, J. Latimer and S.A. Sañudo-Wilhelmy: A combined CDB-MAGIC method for the determination of phosphorus associated with sedimentary iron oxyhydroxides 2108

D.A. Pellicori, C.H. Gammons and S.R. Poulson: Geochemistry and stable isotope composition of the Berkeley pit lake and surrounding mine waters, Butte, Montana 2116

E. Farber, A. Vengosh, I. Gavrieli, A. Marie, T.D. Bullen, B. Mayer, R. Holtzman, M. Segal and U. Shavit: Management scenarios for the Jordan River salinity crisis 2138

Book review 2154

NUMBER 12

E.H. De Carlo, M.S. Tomlinson and S.S. Anthony: Trace elements in streambed sediments of small subtropical streams on O'ahu, Hawai'i: Results from the USGS NAWQA program 2157

L. Aquilina, B. Ladouche and N. Dörfliger: Recharge processes in karstic systems investigated through the correlation of chemical and isotopic composition of rain and spring-waters 2189

M. Doi, G. Warren and M.E. Hodson: A preliminary investigation into the use of ochre as a remedial amendment in arsenic-contaminated soils 2207

S. Earman, F.M. Phillips and B.J.O.L. McPherson: The role of "excess" CO_2 in the formation of trona deposits 2217

P.-J. van Helvoort, P. Filzmoser and P.F.M. van Gaans: Sequential Factor Analysis as a new approach to multivariate analysis of heterogeneous geochemical datasets: An application to a bulk chemical characterization of fluvial deposits (Rhine–Meuse delta, The Netherlands) 2233

L. Pérez del Villar, A. Delgado, E. Reyes, M. Pelayo, J.M. Fernández-Soler, J.S. Cózar, M. Tsige and A.J. Quejido: Thermochemically induced transformations in Al-smectites: A Spanish natural analogue of the bentonite barrier behaviour in a radwaste disposal 2252

T. Iwatsuki, R. Furue, H. Mie, S. Ioka and T. Mizuno: Hydrochemical baseline condition of groundwater at the Mizunami underground research laboratory (MIU) 2283

K.A. Salzsauler, N.V. Sidenko and B.L. Sherriff: Arsenic mobility in alteration products of sulfide-rich, arsenopyrite-bearing mine wastes, Snow Lake, Manitoba, Canada 2303

K. Neumann, W.B. Lyons, E.Y. Graham and E. Callender: Historical backcasting of metal concentrations in the Chattahoochee River, Georgia: Population growth and environmental policy 2315

H.K. Wood and G.L. Macpherson: Sources of Sr and implications for weathering of limestone under tallgrass prairie, northeastern Kansas 2325

P.F. Zárate-del Valle and B.R.T. Simoneit: Hydrothermal bitumen generated from sedimentary organic matter of rift lakes – Lake Chapala, Citala Rift, western Mexico 2343

L.R. VAN LOON, B. BAEYENS and M.H. BRADBURY: Diffusion and retention of sodium and strontium in Opalinus clay: Comparison of sorption data from diffusion and batch sorption measurements, and geochemical calculations 2351

Annual Index I